What is claimed is:

1. Apparatus for mechanically mounting and electrically insulating a piezoelectric element on a head suspension comprising:

a. an electrically conductive substrate having a primary plane and forming a part of the head suspension;

b. a piezoelectric element having first and second parallel major surfaces that are generally planar and located parallel to the primary plane; and

c. an electrically insulating layer between the substrate and the piezoelectric element;

wherein the first major surface of the piezoelectric element faces toward the substrate and the second major surface of the piezoelectric element faces away from the substrate and

wherein the substrate has an aperture aligned with a portion of the piezoelectric element and the electrically insulating layer has a void aligned with the aperture to provide access for electrical connection to the first major surface of the piezoelectric element through the aperture and void.

2. Apparatus for selectively applying a voltage to one of a first and a second major surface of at least one of a pair of piezoelectric motors on a disk drive head suspension with a primary plane of a load beam of the head suspension parallel to a major surface of the piezoelectric motors, the apparatus comprising:

a. a first electrical connection to at least one of the piezoelectric motors on a first side thereof;

b. a second electrical connection to the at least one piezoelectric motor on a second side thereof located opposite the first side;

wherein the at least one piezoelectric motor is electrically insulated from all metallic structural parts of the head suspension and at least one of the first and second electrical connections is made through an aperture in at least one structural part of the head suspension.

3. The apparatus of claim 1 wherein the other of the first and second electrical connections to the piezoelectric motors is an electro-mechanical attachment of a plated surface of the piezoelectric motors with a bond pad on an electrically isolated substrate.

4. The apparatus of claim 1 wherein the at least one of the piezoelectric motors is located on one of a first and second major surface of the head suspension.

5. The apparatus of claim 1 wherein the at least one of the piezoelectric motors is assembled in a pre-fabricated motor assembly before being installed in the head suspension.

6. The apparatus of claim 1 wherein apertures are formed in the head suspension in alignment with at least one of the piezoelectric motors to enable electrical connection to a side of the at least one of the piezoelectric motors that would otherwise be substantially inaccessible for such electrical connection.

7. Apparatus for electrically isolating a piezoelectric motor from a head suspension and for electrically connecting to first and second major surfaces of the piezoelectric motor wherein the head suspension has a load beam oriented in a primary plane parallel to the major surfaces of the piezoelectric motor, the apparatus comprising:

a. an insulating layer located on the head suspension;

b. a conductive pad layer located on the insulating layer and having a first conductive pad aligned with and located under and forming a first electrical connection with at least a portion of the first major surface of the piezoelectric motor and a second conductive pad located adjacent the piezoelectric motor;

c. a second electrical connection between the second conductive pad and the second major surface of the piezoelectric motor;

such that the piezoelectric motor is electrically insulated from the head suspension and the first and second major surfaces of the piezoelectric motor are each electrically connectable from the same side of the head suspension.

8. The apparatus of claim 7 wherein the second electrical connection is formed by a wire bond.

9. The apparatus of claim 7 wherein the second electrical connection is formed by ultrasonic bonding.

10. The apparatus of claim 7 wherein the first electrical connection is formed by a conductive epoxy.

11. The apparatus of claim 7 wherein at least one of the first and second electrical connections is formed by a solder connection.

12. The apparatus of claim 7 wherein at least one of the first and second electrical connections is formed using a lead extension.

13. The apparatus of claim 7 wherein at least one of the first and second electrical connections is formed by a separate piece.

14 The apparatus of claim 13 wherein the separate piece is a laminate including at least a conductive layer and an insulating layer.

15. The apparatus of claim 7 wherein the insulating layer and conductive pad layer are formed as a laminate.

16. The apparatus of claim 15 wherein the laminate further includes a conductive substrate layer.

17. Apparatus for mechanically mounting and electrically insulating a piezoelectric element on a head suspension comprising:

a. a conductive trace layer having a primary plane and forming a part of the head suspension;

b. a piezoelectric element mounted on the conductive trace layer and having first and second parallel major surfaces that are generally planar and located parallel to the primary plane, with the first major surface in contact with the conductive trace layer;

c. a metal flexure layer secured to the head suspension; and

d. a dielectric layer between the metal flexure layer and the conductive trace layer;

wherein the metal flexure layer and the dielectric layers each have a first recess through which the piezoelectric element projects and wherein the dielectric layer secures the piezoelectric element to the head suspension via the conductive trace layer, the dielectric layer and the metal flexure layer and further wherein the metal flexure layer and the dielectric layers each have a second recess aligned with each other and located adjacent the piezoelectric element to provide access for electrical connection between the conductive trace layer and the second major surface of the piezoelectric element through the second recess.

18. A prefabricated piezoelectric element subassembly for use with a head suspension assembly, the subassembly comprising:

a. a metal substrate layer;

b. an insulator layer on the metal substrate layer;

c. a conductive pad layer on the insulator layer having a first conductive pad and a second conductive pad with electrical continuity therebetween; and

d. a piezoelectric element mounted on the first conductive pad

such that the second conductive pad is not covered by the piezoelectric element and the piezoelectric element is insulated from the metal substrate layer.

19. The subassembly of claim 18 wherein the metal substrate layer and insulator layer and conductive pad layer are formed as a laminate.

20. The subassembly of claim 18 further comprising a conductive epoxy bond between the piezoelectric element and the first conductive pad.

21. The subassembly of claim 18 wherein the piezoelectric element has a first major surface located parallel to the metal substrate layer.

22. The subassembly of claim 21 wherein the first major surface is in electrical contact with the first conductive pad.

23. A method for selectively applying a voltage to one of a first and a second major surface of at least one piezoelectric motor on a disk drive head suspension with a primary plane of a load beam of the head suspension parallel to a major surface of the at least one piezoelectric motor, the method comprising:

a. electrically insulating at least one of the piezoelectric motor from all metallic structural parts of the head suspension; and

b. making an electrical connection to one of the first and second major surfaces of the at least one piezoelectric motor through an aperture in at least one structural part of the head suspension.

24. The method of claim 23 comprising the additional step of making an electrical connection to the other of the first and second major surfaces of the at least one piezoelectric motor is an electro-mechanical attachment of a plated surface of the piezoelectric motor with a bond pad on an electrically isolated substrate.

25. The method of claim 23 further comprising the additional step of locating at least one of the piezoelectric motors on one of the first and second major surfaces of the head suspension.

26. The method of claim 23 further comprising the additional steps of assembling at least one of the piezoelectric motors in a pre-fabricated motor assembly and subsequently installing the assembly in the head suspension.

27. The method of claim 23 further comprising the additional step of forming at least one aperture in the head suspension in alignment with at least one of the piezoelectric motors prior to step b.

28. The method of claim 23 further comprising using an ultrasonic bond to make electrical connection to at least one of the first and second major surfaces of the at least one piezoelectric motor.

29. The method of claim 23 further comprising using solder to make electrical connection to at least one of the first and second major surfaces of the at least one piezoelectric motor.

30. The method of claim 23 further comprising using conductive epoxy to make electrical connection to at least one of the first and second major surfaces of the at least one piezoelectric motor.

31. The method of claim 23 further comprising using a separate piece to make electrical connection to at least one of the first and second major surfaces of the at least one piezoelectric motor.

32. The method of claim 31 wherein the separate piece is a laminate including at least a conductive layer and an insulating layer.